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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,757	10/29/2003	John A. Sollars JR.	2056B	6684
25280	7590	01/24/2008	EXAMINER	
Legal Department (M-495)			CULBRETH, ERIC D	
P.O. Box 1926			ART UNIT	PAPER NUMBER
Spartanburg, SC 29304			3616	
			MAIL DATE	DELIVERY MODE
			01/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/696,757

Applicant(s)

SOLLARS, JOHN A.

Examiner

Eric Culbreth

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,13-16,22,23 and 37-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10 13-16 22-23 37-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 10, 13-16, 18, 22-23 and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 50-145875 (cited by applicant).

Japanese '875 discloses an inflatable airbag cushion made of multiple fabric layers and "closely" spaced interconnected woven in joints that resist gas permeation comprising in Figure 4 first and second woven layers each having yarns running in a warp direction 2 and a weft direction 1 (English translation of symbols). There are first and second interconnected joints at either end of bag interval parts B and C, the joints running parallel to each other. In interval B, the number of yarns between joints is 6 in Figures 2 and 4 in each layer. At least some of the weft yarns 1 are crossover yarns switching back and forth from the first layer to the second layer in Figures 2 and 4, with the crossover yarns free of floats at the joints. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '875 to include between 2 and 4 yarns for each of the first and second layers (instead of 6 as disclosed in Japanese '875) as an obvious matter of design choice, as the specification gives no stated reason or particular purpose for the number of yarns between the joints, and the invention would appear to work with numbers of yarns in each layer similar to Japanese '875, so long as there are short intervals of the airbag (claims 10, 13, 18 and 39-41). As broadly recited the crossover yarns are in a plain weave configuration that

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extends across the joints (claims 14 and 16). The joints run in the weft direction 2, and the crossover yarns pass over and under warp yarns in the joints (claims 15 and 37). The layers are free of connection between the first and second joints (claim 22). As broadly and functionally recited, the cushion is woven fabric of "dobby" construction (claim 23). Regarding claim 38, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '875 so that the joints run in the weft direction, as the specification gives no stated purpose or particular reason for the directions of the joints, and the invention would appear to work just as well if the joints ran in the direction of Japanese '875.

Response to Arguments

3. Applicant's arguments filed 10/31/07 have been fully considered but they are not persuasive.

On pages 7-9 of the remarks, the applicant argues that the attached test results (graphs) filed 10/31/07 show unexpected results (a 22% increase in retaining gas and 34% at higher pressures) and that some reference in the prior art teaches using even more yarns than Japanese '875. This is not persuasive because applicant also teaches using more than 4 than yarns (as many as 12 at page 15, lines 9-14 of applicant's disclosure) for each layer and because the test results submitted do not show unexpected improvement. Common sense would dictate that fewer yarns per layer between crossovers would make for more dense fabric and hence retain more gas, and case law has held that changes due to routine experimentation or optimum ranges are

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obvious (In re Aller, 105 USPQ 233 (CCPA 1955)). Because the submitted graphs only compare 4 yarns between joints to 12 yarns (6 per layer is what Japanese '875 teaches), with no comparisons in between or outside the range of 4 and 12 yarns (2 and 6 yarns per layer apparently), no quantitative conclusions can be drawn regarding unexpected results. In response to applicant's remarks on pages 10-12 that there is no motivation or suggestion to make the changes to Japanese '875 to meet the claim language, that Japanese '875 is insufficient because it does not teach using no more than four yarns, and that the specification is clear about using 4 yarns, this is not persuasive because as noted above, it is obvious to optimize ranges, and the specification in fact teaches using as many as 12 yarns. That prior art to Yamashita et al "suggests" a great number of yarns is not persuasive because the prior art relied upon for the rejection (Japanese '875) suggests or shows a smaller number of yarns (6) and applicant's own disclosure suggests as many as 12 yarns will work for the invention; hence applicant's own disclosure suggests increasing the number of yarns (page 13 of remarks). In response to applicant's argument on page 12 that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Culbreth whose telephone number is 571/272-6668. The examiner can normally be reached on Monday-Thursday, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571/272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric Culbreth
Primary Examiner
Art Unit 3616

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